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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/729,915	12/09/2003	Matthew L. Cooper	CQ10210	4729

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EXAMINER	
TIMBLIN, ROBERT M	

ART UNIT	PAPER NUMBER
2167	

DATE MAILED: 11/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/729,915	COOPER ET AL.	
	Examiner	Art Unit	
	Robert M. Timblin	2167	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 August 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This office action corresponds to application 10/729,915 and applicant's remarks/amendments filed 8/24/2006.

Claims 1-29 have been examined and are pending prosecution. Claims 3, 9, 19, and 24 remain objected to for being dependent on a rejected base claim.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 11 is rejected under 35 USC 101 for failing to produce a useful, concrete, and tangible result. Specifically, the step of "determining a structure within"...fails to display a real world value. The resulting determination step is neither applied in a disclosed practical application nor made available for use in such a practical application. Claims 12-15 are rejected accordingly for being dependent upon claim 11.

Claim 16 is rejected under 35 USC 101 for lacking utility. Specifically a storage medium storing a set of program instructions is not expressly disclosed in the Applicant's specification. Claims 17-25 are rejected accordingly as they depend from rejected claim 16.

Claim 26 is rejected under 35 USC 101 for being directed towards claiming software per se. Specifically from the applicant's specification (i.e. paragraph [0082]), claim 26 could be construed as being implemented as software. Software in itself is not statutory because without being implemented with a computer hardware, the software lacks functionality and is directed towards nonfunctional descriptive material. No intended use of hardware is found in this claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 2, 11, 12, 16, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Platt et al ('Platt') (U.S. Patent 6,993,532) in view of Obrador (U.S. Patent Application 2004/0019608 A1).

With respect to claims 1, 12 and 16, **Platt** teaches A method for organizing a plurality of data files using wherein at least one meta-data element is associated with each data file, the method comprising

'extracting, for at least some selected data files, at least one meta-data element associated with a respective selected data file' as extracting context-related meta data (abstract).

'organizing the extracted meta-data elements in a desired order' as building a list based on similarity processing performed on descriptive metadata (abstract and col. 7 lines 60-67).

Platt fails to teach the limitation of a value of a clustering sensitivity parameter.

Obrador, however, teaches **'inputting at least one value of a clustering sensitivity parameter for determining clustering based on pair-wise comparisons between values of the extracted meta-data elements'** as a user selectable similarity criterion [0055]-[0057].

'dividing the selected data files into groups based on the extracted meta-data elements associated with the selected data files and the at least one value of the clustering sensitivity parameter value' as the groups presented in figures 11-12 and [0054]-[0055]. Figure 13 also depicts groups of files in a cluster hierarchy [0056] for organizing media objects according to a similarity criterion.

It would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because the teachings of Obrador would have given Platt's system grouping media objects in a collection based upon one or more media object relevance criteria. Such a teaching would provide an efficient way of organizing digital content in a collection ([0002], Obrador).

With respect to claims 2 and 17 **Platt** teaches **'wherein dividing the selected data files into groups comprises determining a similarity value for at least one pair of the selected data files for the value of the clustering sensitivity parameter, wherein the similarity value of the on pair of the selected data files depends on the value of the clustering sensitivity parameter and the values of the extracted meta-data elements of the at least one pair of the selected data files'** (col. 3 lines 15-45).

With respect to claim 11, **Platt** teaches A method for organizing a plurality of data files using meta-data wherein at least one meta-data element that is at least associated with a corresponding one of the plurality data files, the method comprising:

'processing at least one set of meta-data elements, where each meta-data corresponds to a data file' (col. 11 lines 45-50).

'obtaining a desired value of a clustering sensitivity parameter for analyzing the meta-data' (col. 3 lines 15-20 and col. 5 lines 55-67).

'determining a structure within the processed set of meta-data elements by comparing, for at least a subset of the plurality of data files, elements of at least a subset of the processed meta-data elements to each other using the obtained value of the clustering sensitivity parameter at least a subset of the meta-data using the parameter value to each other' (col. 11 lines 51-62 and figure 7).

Platt fails to teach the limitation of using a value of a clustering sensitivity parameter.

Obrador, however, teaches **'inputting at least one value of a clustering sensitivity parameter for determining clustering based on pair-wise comparisons between values of the extracted meta-data elements'** as a user selectable similarity criterion [0055]-[0057].

'dividing the selected data files into groups based on the extracted meta-data elements associated with the selected data files and the at least one value of the clustering sensitivity parameter value' as the groups presented in figures 11-12 and [0054]-[0055]. Figure 13 also depicts groups of files in a cluster hierarchy [0056] for organizing media objects according to a similarity criterion.

It would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because the teachings of Obrador would have given Platt's system grouping media objects in a collection based upon one or more media object relevance criteria. Such a teaching would provide an efficient way of organizing digital content in a collection ([0002], Obrador).

Claims 4-7, 10, 13-15, 18, 20-22, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Platt/Obrador as applied to claims 1, 2, 11, 12, 16, 17 above in view of **Foote** (Foote, "Automatic Audio Segmentation Using a Measure of Audio Novelty', FX Palo Alto Laboratory Inc).

With respect to claims 4 and 20 and similar claim 27 Platt/Obrador fails to teach determining at least one similarity value as presented in the corresponding calculation.

Foote, however, teaches **'determining at least one similarity value'** as presented as the calculation on page 452 where a distance measure is computed to yield a similarity score.

It would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because the computation of Foote would have given Platt/Obrador's system a property that can yield a similarity score (452, subsection A).

With respect to claims 5 and 18 Platt fails to teach **'determining, for each of at least some data files, at least one novelty value for that data file based on the at least one similarity value for that data file and for a number of nearby data files'**

Foote, however teaches this limitation as finding the novelty measure to detect a novelty value (subsection B 453-454).

It would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because the computation of Foot would have given Platt/Obrador's system the ability to detect novelty value (454).

With respect to claims 6 and 22 **Foote** teaches **'determining at least one novelty value'** as presented as the calculation on page 454, where novelty N(i) is computed to detect a novelty value. The **'Gaussian tapered checkerboard 11 X 11 kernel'** can be found within reference to figure 3 on page 453.

With respect to claims 7, 13 and 21 Platt/Obrador fails to teach determining at least one boundary location between ones of the plurality of data files based on the at least one novelty value determined for at least some of the data files.

Foote; however, teaches this limitation as extracting segment boundaries (subsection C, 454) to estimate boundaries.

It would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because determining at least one boundary location of **Foote** would have given Platt/Obrador's system a good estimate of boundaries (under *Audio segmentation and indexing* 455*)*.

With respect to claims 10 and 25 Platt/Obrador fail to teach **'at least one parameter value that maximizes the confidence value'**

Foote, however, teaches this limitation as the similarity matrix S will have the maximum values (3rd paragraph in subsection A, page 452).

With respect to claim 14 **Platt** teaches **'determining a similarity value by comparing at least some of the meta-data elements in one cluster of data files to at least some other ones of the meta data elements in that element cluster of data files'** (col. 5 lines 53-59).

With respect to claim 15, **Platt** teaches **'determining a value corresponding to a desired grouping of the clusters of data files based on the differences of the similarity values and the dissimilarity values'** (col. 13 lines 35-45 and figs. 11-12).

'determining a dissimilarity value by comparing at least some of the meta-data elements in one cluster of data files to at least some of the meta-data elements in another cluster of data files' (abstract and col. 13 lines 40-49).

Claims 8, 16 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Platt/Obrador and Foote as set forth above and further in view of **Schwanke** (US 5,485,621).

With respect to claims 8 and 23, the combination of Platt/Foot fails to teach determining a confidence value for that boundary location. **Schwanke,** however, teaches this limitation (col. 21, lines 43-45) to provide a decision on which groups to combine.

It would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references

because this teaching of Schwanke would have given the combination of Platt/Obrador and Foote's system a decision on which groups to combine (abstract, Schwanke).

With respect to claims 16 and 26, the limitations of this claim been addressed in the preceding claims set forth above. Accordingly, these claims have been rejected for the same reasons as set forth above by the combination of Platt/Obrador and Foote in further view of **Schwanke**.

Claims 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Platt/Obrador as applied to claims 1, 2, 11, 12, 16, 17 above and further in view of Gargi et al. ('Gargi') (U.S. Patent Application 2005/0027712 A1).

With respect to claim 28, Platt/Obrador fail to teach **an exponentially decreasing function of the scalar magnitude of the difference between t.sub j and t.sub.j relative to K.**

Gargi, however, teaches this limitation in the formula above [0055] and in respect to a weighting factor [0051] for efficiently organizing data.

It would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because the teachings of Gargi would have provided to Platt/Obrador's system aid in developing an organized collection of data ([0009], Gargi).

With respect to claim 29, Platt/Obrador fail to teach the similarity value of the at least one pair of the selected data files comprises a term depending on an inner product of v.sub i and v.sub j relative to K, where K Is the clustering sensitivity parameter value, V.sub i is an actual vector value determined form the I data file, and v.sub j is an actual vector value determined from the j data file.

Gargi, however, teaches this limitation in the formula below [0053] for efficiently organizing data.

It would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because the teachings of Gargi would have provided to Platt/Obrador's system aid in developing an organized collection of data ([0009], Gargi).

Response to Arguments

Applicant's arguments with respect to claims 1, 11, 16, and 26 have been considered but are moot in view of the new ground(s) of rejection.

As seen in the above rejection, Obrador is believed to teach the limitation of a "value of a clustering sensitivity parameter".

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert M. Timblin whose telephone number is 571-272-5627. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Cottingham can be reached on 571-272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Robert M. Timblin

Patent Examiner AU 2167
11/8/2006

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